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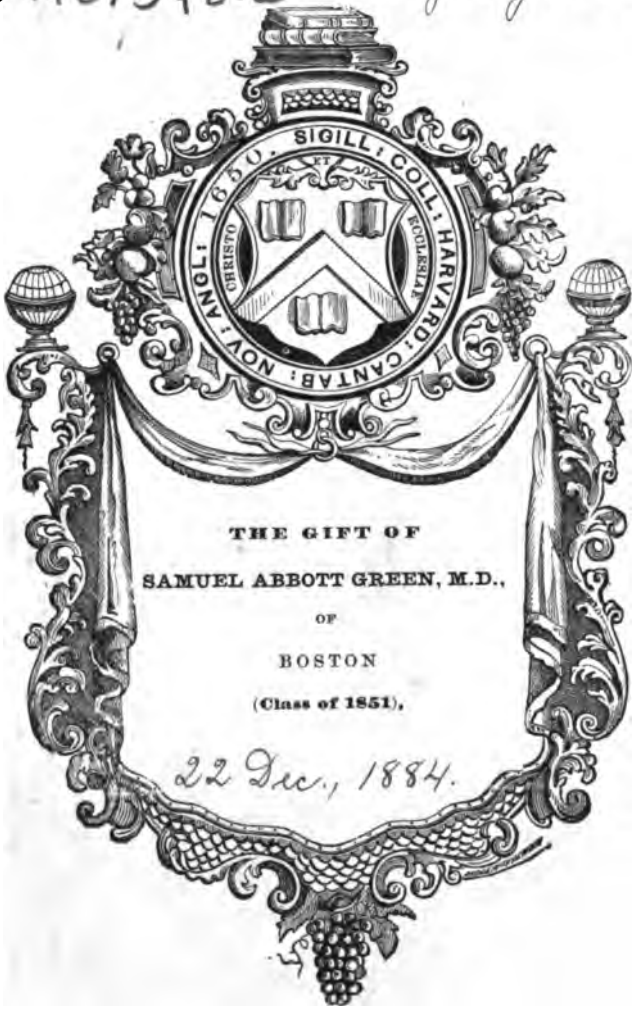

THE GIFT OF
SAMUEL ABBOTT GREEN, M.D.,
OF
BOSTON
(Class of 1851),
22 Dec., 1884.

MONETA:

A STUDY.

By PATTERSON DUBOIS.

MONETA:

A STUDY.

READ BEFORE THE ANNUAL MEETING OF THE AMERICAN NUMISMATIC AND ARCHAEOLOGICAL SOCIETY, NEW YORK, MARCH, 1884.

BY

PATTERSON DUBOIS.

ASSISTANT ASSAYER OF THE UNITED STATES MINT AT PHILADELPHIA; MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY; MEMBER OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, ETC., ETC.

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MONETA.

A WIDE difference exists between the contemplation of coin as money, and money as coin. Money is wealth, coin is science and art. To the economist belongs the one, to the numismatist the other. Neither regards mintage in *both*—much less in *all* its aspects; although without minting Numismatics could not be, and economics would bear but little likeness to itself. If the historic, artistic, poetic, or scientific significance of mintage is so vast and varied, no less vast and varied must be the knowledge and skill required in minting. Coin is an integral part of the political, social, and ethical history of the world; a centre of interests wholly diverse, a pivotal point of the sciences, an epitome of art, a problem and a solution; a true type of the intellectual life. Yet no recognized Master-Science regards minting and mintage in their most comprehensive, most humane, and indeed their most interesting and practical aspects.

I have chosen this as an appropriate time and place for suggesting the name and position of a *Science of Monetalogy*—a study of vital importance to us as a nation and as individuals; a creature hitherto unrecognized chiefly because unnamed. Adapting the language of President Eliot, I may say, "This subject is a branch of history, inasmuch as it gleans its most important facts by the study of the institutions and the industrial and social conditions of the past; it is the science of wealth in so far as it dēals with the methods by which private or rational wealth is accumulated, protected, enjoyed and distributed; and it is a branch of ethics, in so far as it deals with social theories and the moral effects of economic conditions." Yet this is but the minor part. Do you say, then, that I am simply suggesting historic science and economic science to the numismatist? Not at all. I have at least two practical ends for our new Master-Science; that of producing a true coin—one that shall do justice to itself, as

the epitome of a people and an age: and that of defeating or preventing its falsification and counterfeiting.

Now it is a fact that the numismatist has hitherto been too one-sided in his knowledge of coins. He has remembered the historic to the neglect of the physical. Our Mint took a great step in the right direction when it formed a Numismatic cabinet as a means "to stimulate research and fasten what we learn." But this science of minting or coinage, where and by whom is it studied? Possibly by a few Mint experts, who have learned the profession while in the government service; but once out of it, their occupation is not only gone, but they are professionally dead. Is there no need for such professional study outside of the service? "It is," says Jevons, "the grave misfortune of the moral and political sciences, as is well shown by Herbert Spencer, that they are continually discussed by those who have never labored at the elementary grammar or the simple arithmetic of the subject. Hence the extraordinary schemes and fallacies every now and then put forth." Here is reason enough if there were no other; to limit and control "the extraordinary schemes" which threaten to mutilate or overwhelm our monetary system by gaining foothold in our national legislature, and an over-generous hearing in the daily press. Bodies of learned and skilled men are ready to protest and propose in every other domain of public business; but in this which comes most pointedly to every house and home, because to every pocket and till, there are no professors to advise, no masters to rule. Where then, should such a profession, such a science gain birth, if not in the Numismatic hall?

One may be skilled in minting and know but little of Numismatics; he may be versed in Numismatics and know but little of minting: but one cannot be an expert in either without knowing something of both. This would not be to expect every collector and student of coins to be expert in the practical *art* of minting, but simply to recognize the existence of the Master-Science, of which minting or coinage is the more mechanical, physical side, — as phonology is of linguistic science.

The sun concerns us not so much as does the circumambient light it sheds; so do we care less for the coin, *per se*, than the mental atmosphere emanating from and surrounding it. But we must first create our bright little disc before we can warm ourselves in its coruscations. "Every work of art," says a recent writer, "implies two minds: the one producing, the other that for which the product is made. The simplest object of utility, a pin or a bowl, is the record of a maker, and a purpose. The desire of man which is satisfied by the production is much more important in history than the skill of producing." Now our Science is the meeting-ground of these two minds; it regards the minter — the producer, and him for whom the product is made; it

contemplates this "desire of man which is satisfied by the production" as it shows itself in the history, the poetry, the science, the art, of all who are, or have been interested in, or influenced by its production. Where, then, is this unnamed, unformulated Master-Science? It is lying about in loose threads on our library shelves, in our society proceedings, our newspapers, our magazines, our unpassed bills, our laws, and our unexpressed longings. The chemist, metallurgist, philologist, archaeologist, metrologist, numismatist, etymologist, historian, economist, artist, even the counterfeiter, all have filaments of it. But the loose ends are tangled, and there is no usefulness in the matted threads, because there is no unity of direction, until they be carded and tied. Every science is thus formed. Each has its threads interwoven with some other science. All knowledge is thus related. How then shall we recognize and fix our science? Only as we give all things their individuality—by giving it a name. Title ensures place. After all, poetry and science are but correct naming. Accurate thinking is not possible without language. Language is not less the creator of thought than the expression of it. Science is accurate knowledge. Every science must therefore create and define its terminology: and the first act and most important part of that creating is the naming of the science itself;—this constitutes its individualization, establishes its identity and becomes the germ which is to expand and flower into new life. It is safe to say that but for the *naming* of Chemistry we should never have been divorced from Alchemy; Astrology died only because Astronomy was born; and modern scientific Etymology is backward because of the stigma of an old and now disreputable name. The birth of the science and its name are coeval. Naming is the tying of the knot and making the many strands of knowledge a unit in purpose.

If we think of how many sciences, how many human interests radiate from a single coin, we shall not be slow to conclude that a coin, as the best representative of the glyptic art, is the truest type of the mind, *Mens*, *menos*, and of the intellectual man. These and various cognates and derivations, together with the name of the goddess Juno Moneta, are from the Aryan root MAN, to think. Not to wander too far into the metaphysic, we may find a name in this line of thought and trace the verbal progeny in one direction from the Latin *moneta*, a mint, money, to the Anglo-Saxon *mynct* or *mynt*, a coin, later English *menet* and modern *mint*. These English forms were borrowed from the Latin *Moneta*, from the fact that money was coined in the temple of Juno Moneta on the Capitoline Hill at Rome. Hence, too, our words *money* and *monetary*.

As Moneta, Juno is our admonisher (moneo) from MAN, to think. Rooted in the intellect, goddess of our *mint*, guardian of our *money*, the living name of a dead myth seems to be the natural parent of an idea, the fit coiner of a word, the name MONETALOGY. Henceforth we shall avoid many stammering explanations, many

circumlocutions, if we speak of monetalogists, non-monetalogists, and quack-monetalogists. We shall offset specific ignorance with *Monetalogy.* Some writers, some numismatists, legislators, economists, merchants, artists, artisans will be in a degree or in no degree monetalogists.

Considering the Master-Science as born and named in the sponsorship of this Society, it remains to exemplify in a somewhat familiar and random way the intimate relations among sundry minor sciences or special branches of our general science of Monetalogy. As chemistry plays into the hands of mineralogy, mineralogy into geology, and this back into mining, metallurgy, and so forth, so Numismatics plays give-and-take with archaeology on one side, with philology on another, with ethnology on a third, with ethology, mythology, symbology, chronology, epigraphy, metrology, minting, metallurgy, economics, and so on. All, and more than these contribute to Monetalogy. So too, we see how the purely historical sciences link hands with the purely physical sciences. Now, numismatology seems to occupy a singularly central position with reference to the contiguous studies. While all depend more or less upon the knowledge bound up in coins, the numismatist is the recognized custodian of the raw material. It may not be amiss to illustrate this by citing one or two of the less familiar examples of the extrinsic value of coins and coinage. I quote from Rev. Isaac Taylor's work on *The Alphabet:* "Starting from the axiom that alphabetic development is slow, gradual and progressive, it is plain that the style of the letters on coins and inscriptions of persons otherwise unknown to history, may furnish important chronological data, and may bring what would otherwise be mere legend within the domain of exact knowledge. Examples are supplied by the coins of the Arsacidian, Bactrian, and Indo-Scythian Kings, of the Nabathean and Numidian Princes, or of the chiefs who ruled in Gaul and Britain prior to the western extension of the dominion of Rome." Or take the case of the mutations of the Sidonian alphabet as illustrated by the legends on a long unbroken series of Phoenician coins, which serve to approximate the dates of a large number of inscriptions and so add to them a twofold value. It is likewise mainly upon the evidence of coins that the chronology of the undated Punic inscriptions can be determined.

Now, if it be urged that these examples are all in the line of the historic sciences, we may go a step further. Look at metrology. It is on one side purely historical, on another physical, reaching from the highest abstractions of mathematics down to the tape measure and the quart mug. Yet metrology is so closely interwoven with Numismatics, that the two are for a considerable distance indistinguishable. "There is overwhelming evidence," says Jevons, "to prove that simple currency by weight is the primitive system. Before the invention of the balance, lumps and grains were, no doubt, exchanged according to a rude estimation of their bulk and weight." Abraham

weighed out to Ephron "four hundred shekels of silver, current money." But these shekels were not to be regarded as coin. The French metric system has shown the relation between measures of weight and of length to be as intimate as geometry and geology. Indeed the Latin *uncia* was both a twelfth-part weight and a twelfth-part measure of length. Through the Anglo-Saxon, the Latin *U* passed easily into *Y* and finally into *I*, giving us our *inch*. In French, the Latin *uncia* became *unce*, finally modernized into *once*, whence our *ounce*. Both the inch and the ounce have retained their twelfth-part value in our systems.

Now, the measurements and other *standards* in coinage, are extensive subjects for stimulating monetalogical research and fastening what we learn. Along their highways one may travel either toward the etherial region of metaphysics or toward the more solid, if more sordid, ground of the market-place. A single instance will suffice to show the breadth and the practical import of the study of coins as popular standards. I refer to the ability to detect the false, and prevent counterfeiting. An accurate defining and setting forth of these standards with this view alone, entitles such study to rank with the dignity of science. It would be a valuable, practical outcome of Monetalogy; for few are aware "what a hell of witchcraft lies in the small orb of one particular" — coin.

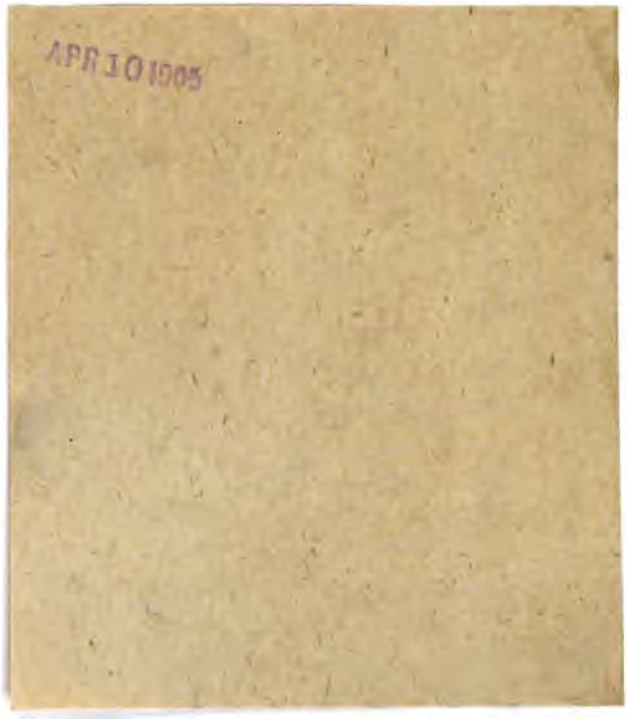
I have cited with some particularity the essential intimacy of Numismatics, metrology, and minting. But Monetalogy necessarily contemplates, with reference to its own life, various other sciences which it is enough merely to have named.

I have thus attempted to indicate, rather than to define, much less to formulate, a line of study which seems worthy of the recognition due to a science embracing in its circuit the pleasures of mental culture, and the commonplace necessities of daily physical life. Though the presentment may have suffered from vagueness and possible incoherence, yet there may be suggestive strength in a picture made of a few rough blotches of light and shadow, without trimness of outline or definiteness of detail. I have sought to suggest a fuller and more exact and orderly study for those who, not without erudition in these directions, have yet pursued it as a thing of "shreds and patches," wanting unity because wanting purpose; wanting a place because wanting a name. I have aimed to establish a closer brotherhood among the physical and the historical sciences, to separate pecuniary from intellectual profit, to enlarge the sympathies of specialists, and particularly to broaden the Numismatic view.

I have looked towards the more general yet more specific recognition and study of metrological, economic, and artistic standards chiefly as exemplified in our coinage and with reference to its improvement and better protection.

Let us think less of the dealing in, and mere serial collecting of coins, than the mental handling of the various human interests which surround them. Perhaps the most practically useful recommendation here possible to make, may be given in the apt language of President Eliot: "I maintain that the young science deserves to be admitted with all possible honors to the circle of the liberal arts, and that a study fitted to train faculties of the highest value, both to the individual and to society, which are not trained by the studies now chiefly pursued in youth, ought to be admitted on terms of perfect equality to the academic curriculum."

A coin as a specimen of glyptic art, and the epitomized type of all art, seems to claim a sort of divine right to be regarded as the truest symbol of the intellectual life of man. And in contemplating coins and coinage in this, the broadest, most comprehensive, most humane aspect, I have discerned a great body of facts making for a common purpose, and worthy of the consideration due to a Master-Science. And this I have ventured to call the Science of Monetalogy.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